

## PATENT ABSTRACTS OF JAPAN

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## (54) PRODUCTION OF MULTIFACE MASTER PLATE FOR REPRODUCTION OF HOLOGRAM

## (57)Abstract:

**PURPOSE:** To improve working efficiency by pressing a hologram master plate to a resin layer which is formed on a substrate and is curable by external energy and projecting energy thereto through a mask which is provided on the substrate side and has the same shape as the shape of the master plate, thereby curing the resin layer.

**CONSTITUTION:** The substrate 7 coated with the uncured resin 6 having curability with the external energy is fixed to a holder 8. The hologram master plate 4 having the surface of fine rugged shapes is disposed by the holder 5 oppositely to the layer of the resin 6. An energy irradiation system 10 integrated with the mask 9 having the same shape as the shape of the master plate 4 is installed to the substrate 7 side in the state of holding a shutter 11 closed. The holder system 12 is risen to press the master plate so as to bring the surface thereof into contact with the uncured resin layer 13 and the energy irradiation system 10 is lowered until said systems comes into tight contact with the substrate 7. The energy is projected to the uncured resin 6 in the part in contact with the plate 4 by opening the shutter 11 by which a hologram reproducing mold 16 is obtd. The reproducing mold 16 is successively formed by repeating the similar stages to the other part of the uncured resin 6.

